

REMARKS/ARGUMENTS

Claims 15 - 30 are active in the case. Reconsideration is respectfully requested.

The present invention relates to the preparation of olefins or olefin mixtures having from 8 to 12 carbon atoms.

Applicants wish to thank the Examiner for the indication of allowable subject matter in the case.

Claim Rejection, 35 USC 102

Claims 15, 16, 19-22 and 26-30 stand rejected based on 35 USC 103(a) as obvious over Kaizik et al '782 in view of Kukes et al, '890. This ground of rejection is respectfully traversed.

The Examiner in his description of the process of the '782 patent on page 5 of the Office Action notes that the reference discloses a first step in which an aldehyde can be produced by hydroformylation of olefins. However, contrary to the second step B described by the Examiner, the patent does **not** describe the hydrogenation of the first step aldehyde. Rather, as described in columns 2 and 3 of the patent, an *aldol condensation is performed in which the aldehyde from the first step is reacted with acetone*. This gives an α,β -unsaturated ketone (column 2, lines 38-40). Then, as described in column 3, lines 30 et seq of the patent, the unsaturated ketone is hydrogenated so that both the unsaturated olefinic bond and the carbonyl group of the ketone are reduced to give the corresponding 2-alcohols (see col 4, lines 17-32). On the other hand, in the present process, the second step requires the hydrogenation of the saturated aldehyde (not an unsaturated ketone) obtained in the first step directly to the 1-alcohol product. Thus, the 2-alcohols produced by the process of the reference are not the 1-alcohol product of the second step of the present process.

In the third step of the process of the patent, the 2-alcohol starting material is dehydrated to give a mixture of the 1- and 2-olefins (see col 4, lines 25-36). The conversion to largely 1-olefins can be achieved by a known process as the reference makes evident. This combined dehydration/isomerization step of the 2-alcohol starting material of the patent is different from the third step dehydration reaction of the present process in which the 1-alcohol is directly converted to 1-olefin product. It is at this point that the process of the patent terminates as a product containing largely a 1-olefin such as 1-octene is prepared. No counterpart to the fourth and last mentioned metathesis step of the present invention is conducted.

The Examiner applies the Kukes et al patent which discloses a variety of metathesis reactions in columns 2 and 3 of the patent. However, the sole objective of the reference is to provide an improved catalyst system for the general improvement of unsaturated reactants to products. The catalyst is a combination of supported tungsten oxide, supported molybdenum oxide or a mixture thereof and a second component of tungsten, silicon, antimony or mixtures thereof. There is no teaching or suggestion in the patent of a metathesis reaction that is the concluding step in a multi-step process in which a light unsaturated hydrocarbon is used as a starting material in the production of at least one olefin of higher molecular weight, where a specification of the concluding metathesis step is the production of the heavier at least one olefin with the elimination of ethylene in the conversion to the heavier olefin. Accordingly, it is not clear at all why one of skill in the art would be led to carry the disclosure of Kaizak et al beyond its scope of three sequential reactions which results in an unsaturated olefin product as desired. Accordingly, the combined patents are not believed to suggest the present process as claimed. Withdrawal of the outstanding ground of rejection is respectfully requested.

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Claims 17 and 18 stand rejected based on 35 USC 103(a) as obvious over Kaizik et al '782 in view of Kukes et al, '890 and Gelling et al, U. S. Patent 6,153,800. This ground of rejection is respectfully traversed.

Claims 17 and 18 are directed to subject matter of secondary interest to patentability. By virtue of their dependency on Claim 15, they are believed to be patentably distinguished over the cited prior art. Accordingly, withdrawal of the obviousness ground of rejection is respectfully requested.

It is believed that the application is in proper condition for allowance. Early notice to this effect is earnestly solicited.

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